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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/614,843	COLE, WILLIAM	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ling-Siu Choi	1713	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/16/2005.
2. ☒ The allowed claim(s) is/are 1,2,5-8 and 10.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
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### **DETAILED ACTION**

1. This Office Action is in response to the Amendment filed September 16, 2005. Claims 3-4 were canceled and claims 7-10 have been added. Claims 1-2 and 5-10 are now pending.

#### ***Examiner's Amendment***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CAR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Arthur M. Reginelli on October 7, 2005.

3. The application has been amended as follows:

**Cancel claim 9** without prejudice;

Claim 10, change "The process of claim 10" to --The process of claim 1--.

#### ***Allowable Subject Matter***

1. Claims 1-2, 5-8, and 10 are allowed.

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2. The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest reference: Moller (WO 96/01304).

A process for the hydrogenation of a polymer, comprising the steps of	
A	providing an <b>unsaturated polymer</b>
B	combining the unsaturated polymer with hydrogen gas and an hydrogenation catalyst solution to create a reaction mixture, where the unsaturated polymer, hydrogen gas, and <b>catalyst</b> are disclosed <b>in a solvent</b> , and
C	pressurizing and heating the reaction mixture such that the contents of the reaction mixture exist in the supercritical phase
D	hydrogenating the unsaturated polymer

(summary of claim 1)

Moller discloses a process to hydrogenate a polymer, comprising (a) bringing a mixture of solvent, substrate, and hydrogen gas to a supercritical state or near-critical state to achieve a substantially homogeneous solution and then (b) contacting the resulting substantially homogeneous solution with a fixed catalyst to produce a hydrogenated substrate in the supercritical or near-critical solution (abstract; page 7, lines 1-7; claim 1). However, Moller does not teach or fairly suggest a process to produce a hydrogenated polymer in the presence of the catalyst which is dissolved in a solvent (**catalyst solution**). Furthermore, with respect to claims 2 and 5-6, Moller does not teach or fairly suggest a process to hydrogenate polymer, comprising steps of pre-determining the critical temperature and critical pressure of hydrogen and solvent(s) or polymer(s), hydrogen, and solvent(s).

In light of the above discussion, it is evident as to why the present claims are patentable

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over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



**LING-SUI CHOI**  
**PRIMARY EXAMINER**

October 5, 2005